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ABSTRACT

Suggesting implications for career education program development and revision, this document is one in a series of five publications reporting results of a career development needs study of four different age levels. In this document, the assessment of career development needs of nine-year olds is presented in three major sections. Section 1 presents an overview of the National Assessment of Career and Occupational Development (COD), explaining the rationale, obectives, exercises, assessment samples, subpopulation data, and possible uses of the career development needs series. Section 2 presents the collected data on career development needs of nine-year-olds. The results are summarized and program implications are suggested under five broad objectives: prepare for making career decisions; improve career and occupational capabilities; possess skills that are generally useful in the world of work; practice effective work habits; and have positive attitudes toward work. Also organized by these five objectives, section 3 provides a more detailed description of the COD assessment data, including statistical tables. (BM)

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CAREER DEVELOPMENT NEEDS OF NINE-YEAR OLDS:

HOW TO IMPROVE CAREER DEVELOPMENT PROGRAMS

Prepared for the
National Advisory Council for Career Education

By

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NVGA-AMEG Commission on National Assessment's
Career and Occupational Development

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National Advisory Council for Career Education, August 1977

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PREFACE

A considerable portion of each agenda of the National Advisory Council for Career Education is devoted to assessing the various means by which the identifiable knowledge gaps in career education can be closed. The result has been the commissioning of two series of papers on a wide variety of topics. Several of the papers from the first series were published in 1976, e.g., those dealing with the emerging history and the efficacy of career education.

A second series of papers were commissioned in 1976, again, on a broad number of career education concerns. The document in your hands is one of those submitted to the Council in either late 1976 and early 1977.

At the April 6, 1977 meeting of the Council, a substantial amount of time was spent discussing these papers. A motion was passed unaminously to reflect the position to which the Council strongly adheres, namely, that it is healthy to have different points of view on career education and that the promotion of these differing views is a very positive step in the life of career education. We sincerely believe that the dissemination of these papers is, indeed, a very salutary action in the furtherance of the career education debate.

This does not and should not imply that the National Advisory Council for Career Education accepts and endorses all the concepts, ideas, suggestions and recommendations in the papers we are now disseminating. We disagree with opinions expressed in several of these papers. This document, rather, reflects the realization that the Council has identified certain goals and issues and that we wish to make available for reading, and, to be sure, thought-provoking discussion, this set of commissioned papers which directly explore these goals and issues.

Our intent, as we have indicated, has been to close some of the existing knowledge and philosophical gaps in the field. We trust this document will contribute toward that end.

George F. Meyer, Jr.
Chairperson

May 20, 1977

PREFACE

This publication is one of a series which was developed by the NVGA-AMEG Commission on National Assessment's Career and Occupational Development (COD). The Commission was formed in 1974 under the leadership of Frank Womer, who was at that time president of AMEG, because of his belief in the importance of National Assessment's COD results for the design of career development programs. During that year, the joint Commission was formed with Frank Womer as AMEG Chairperson and Thelma Vriend as NVGA Chairperson. In July of 1974, a formal proposal of approval for the Commission's efforts was submitted to APGA and official approval was obtained from the APGA Board of Directors.

From 1974-76, the Commission members, which include Frank Womer, Thelma Vriend, Marjorie Mastie and Ronald Pollack, worked in consultation with others such as Ralph Bohn, Donald Super, and Doris Jeffries to identify writing teams and to coordinate efforts with the National Assessment Project staff. Two writing teams were organized: The Age-Level Team with Juliet Miller (Editor), Roger Aubrey, Anita Mitchell and Bert Westbrook, and the Developmental-Oriented Team with Dave Tiedeman (Editor), Martin Katz, Anna Miller-Tiedeman, and Samuel Osipow.

In June of 1976, the Commission, working cooperatively with APGA, obtained funding from the National Advisory Council for Career Education chaired by Bruce Shertzer. At that time, writing of the publications was initiated. Throughout the project, major support

and assistance have been provided by the National Assessment staff including: Roy Forbes, Director; Gloria Frazier; Don Phillips; Barbara Ward; and Ken Seaman. Also, Charles Lewis and Frank Burtnett of APGA provided encouragement and administrative coordination.

This series of publications, developed through the efforts of the NVGA-AMEG Commission on National Assessment (COD), is the result of recognition by the many individuals involved of the importance of using information about the career and occupational development status of youth and adults as the basis for the design of career development programs. The intent of the publications is to present National Assessment's COD results, and to suggest implications of these results for current practice. The series is designed to stimulate the development and revision of programs based on career development needs as indicated by the assessment data. It provides information which is useful to counselors, counselor educators, teachers, educational decision-makers, and government policy-makers.

Juliet V. Miller
Age Level Editor

Ann Arbor, Michigan
February, 1977

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Objective III: Possess Skills That Are Generally Useful in the World of Work
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SECTION I

OVERVIEW OF THE NATIONAL ASSESSMENT CAREER AND OCCUPATIONAL DEVELOPMENT ASSESSMENT

WHAT IS NATIONAL ASSESSMENT?

National Assessment of Educational Progress (NAEP) was initiated in 1964 as a response to the need to look at the outputs as well as the inputs of education. The project goals include collection and reporting of information about specific educational achievements of young people in the United States, detection and reporting of changes in that achievement, and encouragement of states and educational policy makers to apply the new data to the solution of specific problems in education.

NAEP surveys the educational attainments of four age groups: Nines, Thirteens, Seventeens and Adults (ages 26-35). These age groups represent educational milestones attained by most students. Nines have been exposed to the basic program of primary education; Thirteens have finished their elementary school program; and Seventeens are completing the high school program. Seventeens also include a sample of out-of-school youth. Adults represent a group who have completed their formal education and have been away from school for a number of years.

Ten educational areas are assessed in five-year cycles. These areas are: art, career and occupational development, citizenship, literature, mathematics, music, reading, science, social studies and

writing. Each five-year cycle includes the following steps: development and review of objectives by subject matter specialists and educators, development and field testing of exercises to measure the objectives, administration of exercises to national samples at the four age levels, and data analysis and interpretation.

OVERVIEW OF THE CAREER AND OCCUPATIONAL DEVELOPMENT AREA

Rationale for the "Career Development Needs" Series

The first NAEP Career and Occupational Development (COD) assessment was administered during the 1973-74 school year to a national sample representing the four age levels. This "Career Development Needs" series contains four publications. Each publication provides an overview of the NAEP-COD results for one of the four age levels: Nines, Thirteens, Seventeens, or Adults. This series is intended to provide a summary of the COD results which will help educators gain a better understanding of the current status of a particular age group on specific career and occupational development objectives. In addition, each publication draws implications of the COD results for career development programs suggesting types of learning experiences which might facilitate increased achievement on the specific objectives. The broad goal of each publication is to provide a stimulus for local educators as they assess the needs of their own students and design career development programs to meet these needs. Hopefully, these publications will trigger discussion and program planning by providing a summary of the COD assessment results.

The Objectives

The development of COD objectives and exercises was completed by the American Institutes for Research under contract with NAEP. The COD assessment used exercises to measure the following objectives and sub-objectives:

I. Prepare for making career decisions.
   - A. Know own characteristics relevant to career decisions.
   - B. Know the characteristics and requirements of different careers and occupations.
   - C. Relate own personal characteristics to occupational requirements.
   - D. Plan for career development or change.

II. Improve career and occupational capabilities.

III. Possess skills that are generally useful in the world of work.
   - A. Have generally useful numerical skills.
   - B. Have generally useful communication skills.
   - C. Have generally useful manual-perceptual skills.
   - D. Have generally useful information-processing and decision-making skills.
   - E. Have generally useful interpersonal skills.
   - F. Have employment seeking skills.

IV. Practice effective work habits.
   - A. Assume responsibility for own behavior.
   - B. Plan Work.
   - C. Use initiative and ingenuity to fulfill responsibilities.
   - D. Adapt to varied conditions.
   - E. Maintain good health and grooming.

V. Have positive attitudes toward work.

A. Recognize the bases of various attitudes toward work.

B. Hold competence and excellence in high regard.

C. Seek personal fulfillment through own achievement.

D. Value work in terms of societal goals.

This is the total range of objectives used in the COD assessment. Not all sub-objectives were assessed for each age level. Each publication in this series describes the specific sub-objectives assessed at that age level.

The Exercises

The exercises were extensively reviewed and tested prior to the actual assessment, and were developed in consultation with educators, career development specialists and lay persons. The exercises are a unique aspect of NAEP since, in addition to multiple choice items, NAEP uses other exercise formats such as open-ended questions and individual performance items.

In any NAEP assessment, 40-60% of the exercises are released to the public while one-half remain unreleased so that they can be used again in future assessments. This series reports only the results for the released COD exercises. Therefore, each publication describes the actual exercises, and those individuals who are interested in using the exercises locally can obtain copies of the exercises complete with scoring instructions by ordering the Career and Occupational Development Technical Report: Exercise Volume (see p. 12).

It is important to note that the exercises are, in most cases, administered to more than one of the four age groups thus allowing

cross-age comparisons. While the four publications in the "Career Development Needs Series" do not make comparisons across age levels, the NVGA-AMEG publication by Tiedeman, Katz, Miller-Tiedeman, and Osipow (see p. 11) is focused specifically on this type of comparison.

The Assessment

NAEP administers exercises to national samples at each age level. Exercises are administered in packages which contain several exercises and which can be administered in a reasonable time period. COD packages were administered to a national sample which was stratified by region of the country, size of the community and socioeconomic level. The administration of the COD assessment was administered by the Research Triangle Institute, Raleigh, North Carolina, and scored by the Measurement Research Center, Iowa City, Iowa. About 100,000 respondents were sampled in the 1973-74 assessment. However, not all respondents took all exercises. For example, more than 35,000 Thirteens participated in the assessment but only 2,200-2,700 Thirteens responded to any one of the exercise packages. The total number of respondents included in each age group was approximately as followed: Nines--28,000; Thirteens--38,000; Seventeens (in school)--34,000; Seventeens (out of school)--1,000; and Adults--2,000.

The Sub-Populations

The COD assessment was administered to a national sample of each of the four age level groups. However, data analysis was completed not only for the total national group at each level but also for several sub-populations. These sub-populations are:

Sex

Results are presented for males and females.

Race

Results are reported for blacks, whites and others.

Region

Results are reported for four regions: Northeast, Southeast, Central and West. The states that are included in each region are shown in Figure 1.

See Figure 1, p.81

Parent Education

Four categories of parental education are defined by NAEP. These categories include: (1) No-HS--those whose parents have had no high school education; (2) Some-HS--those who have at least one parent with some high school education; (3) Grad-HS--those who have at least one parent who graduated from high school; and (4) Post-HS--those who have at least one parent who has had some post high school education.

Size and Type of Community

Community types are identified both by the size and location of the community and by the type of employment of the majority of people in the community. These include: (1) high metro--areas in or around cities with a population greater than 200,000 where a high proportion of the residents are in professional or managerial positions; (2) low metro--areas in or around cities with a population greater than 2,000 where a high proportion of the residents are on

welfare or are not regularly employed; (3) extreme rural--areas with a population under 10,000 where most of the residents are farmers or farm workers; (4) urban fringe--communities within the metropolitan area of a city with a population greater than 200,000 outside the city limits and not in the high or low metro group; (5) main big city--communities within the city limits of a city with a population over 200,000 and not included in the high or low metro groups; (6) medium city--city with population between 25,000 and 200,000; and (7) small places--communities with a population of less than 25,000 and not in the extreme rural group.

Throughout this "Career Development Needs" series, sub-populations are reported when the results indicate that a sub-population is significantly different from the total national group. This means that while sub-population differences are not comprehensively reported, important differences have been highlighted.

The Data

The NAEP-COD assessment is an objective-referenced assessment. This means that the results are reported in percentages of the total group or specific sub-group which gave acceptable responses for a specific exercise related to a specific career and occupational development objective. No attempt is made to summarize overall COD performance for individuals. The COD results are helpful in providing insights into the current achievement levels of specific groups on each of the measured objectives.

The "Career Development Needs" series reports P-values for various exercises. The P-values are weighted estimates of the total population percentages. Thus, for example, a statement that, "90% of Nines gave an acceptable response," means that 90% is an estimate of all Nines in the United States who would have given an acceptable response if the total population has been assessed.

Publications in this series also report sub-group differences from the total group. For example, statements such as, "Females scored higher than the total group," are made throughout the reports. Throughout the tables, significant differences are indicated with asterisks (*). Standard errors were computed for each P-value. Sub-group differences are considered to be significant if the obtained differences between the sub-group and the total group was at least twice as large as the estimate of the standard error. This means that asterisks indicate that there is a 95% probability that a difference between the total group and the sub-group actually exists. It is important to note, however, that when these sub-group differences are reported, the causes for the differences in achievement levels cannot be ascribed solely to membership in a particular group. Each respondent is a member of many groups. NAEP results do not provide direct evidence of causal relationships.

USES OF THE "CAREER DEVELOPMENT NEEDS" SERIES

At the present time, there is considerable interest on the part of local school districts, adult education programs, and educational associations in developing career development components

for career education programs. Crucial to the development of quality programs is an understanding of the current career and occupational development status of students within the educational system. Local school districts are attempting to develop goals for these career development programs, but these goals are difficult to establish without baseline information. The central program development questions are, "What is the current achievement level of specific student groups on career development objectives?" and "What are the implications of those data for designing career development programs?"

The "Career Development Needs" series is designed for groups of program planners at the local school building level and professional groups interested in career development at the specific age level. You should consider the following guidelines as you use these publications.

1. Select Relevant Objectives--Each publication overviews the results related to each of the five broad COD objectives and sub-objectives within the broad objectives. You probably will find some objectives and/or sub-objectives more relevant to your own program priorities. Review the objectives on pages 3-4 and select those which are most relevant for you. Use this list to guide you as you review the data analysis and implications sections of the publications.
2. Review the Exercises--As the results are presented, each exercise is described. It will be important for you to review the nature of each exercise to determine whether it is measuring an aspect of the objectives which is important for you. This can be done

by comparing the exercises to your current curriculum materials and to your existing program objectives.

3. Decide Whether to Collect Local Data--The COD results are for a national group rather than local groups. They are helpful in providing an overview of the current achievement level of the total national group and sub-groups within the total group. By focusing on specific sub-groups such as geographic region or parental educational level, you can identify groups more similar to your own student group than the total national group. However, you will also want to consider the possibility of using the COD exercises with your own students to collect local data. The COD exercises reported in these publications are released and are available in the Career and Occupational Development Technical Report: Exercise Volume (see p. I2).

4. Overview Relevant Results--Once you have selected objectives and/or sub-objectives relevant to your local program, it will be helpful if you overview the results for these objectives in the data analysis section of the publication. This will help you understand percentages (P-values) for the total group and will highlight important sub-group differences.

5. Use the Implications as a Stimulus--The COD results are question raising in the sense that they provide important information about the current achievement level of students on COD objectives. Throughout the implications section, you will find a number of suggestions about types of career development activities which the COD results indicate are needed at the present time.

However, these implications are intended to trigger your thinking rather than to be inclusive of all possible program suggestions. You are encouraged to use the implications as a stimulus to help you develop further ideas for career development program activities.

OTHER COD ASSESSMENT RESOURCES

NVGA-AMEG Series

This publication is one in a series of publications developed by the NVGA-AMEG Commission on National Assessment with support from the National Advisory Council on Career Education and the National Assessment Project. These publications are available from: Publication Sales, American Personnel and Guidance Association, 1607 New Hampshire Avenue, N.W., Washington, D.C. 20009. Publications in this series include:

Miller, J. M., Career Development Needs of Nine-Year Olds: How to Improve for Career Development Programs. Washington, D.C.: National Vocational Guidance Association, 1977.

Aubrey, R. F., Career Development Needs of Thirteen-Year Olds: How to Improve for Career Development Programs. Washington, D.C.: National Vocational Guidance Association, 1977.

Mitchell, A. H., Career Development Needs of Seventeen-Year Olds: How to Improve for Career Development Programs. Washington, D.C.: National Vocational Guidance Association, 1977.

Westbrook, B. W., Career Development Needs of Adults: How to Improve Career Development Programs. Washington, D.C.: National Vocational Guidance Association, 1977.

Tiedeman, D. V., Katz, M. R., Miller-Tiedeman, A., and Osipow, S. The Cross-Sectional Story of Early Career Development as Revealed by the National Assessment of Educational Progress. Washington, D.C.: National Vocational Guidance Association, 1977.

NAEP Series

The NAEP project has also developed several reports related to the COD assessment. These are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Career and Occupational Development Technical Report: Exercise Volume. Career and Occupational Development Report No. 05-COD-20.

For exercises that have been released, this volume provides a copy of the exercise, complete documentation about administration and scoring procedures and national results for each foil and/or scoring category.

The First National Assessment of Career and Occupational Development: An Overview. Career and Occupational Development Report No. 05-COD-00.

Adult Work Skills and Knowledge: Selected Results from the First National Assessment of Career and Occupational Development. Career and Occupational Development Report No. 05-COD-01.

An Assessment of Career Development Basic Work Skills: Selected Results from the First National Assessment of Career and Occupational Development. Career and Occupational Development Report No. 05-COD-02.

Objectives for Career and Occupational Development (1971). National Assessment of Educational Progress.

This volume contains all of the COD objectives which were samples for the 1973 assessment which is described in this publication series.

Revised Objectives for Career and Occupational Development (1977).

This volume contains the COD objectives which will be sampled for the second COD assessment which is targeted for 1978.

SECTION II

CAREER DEVELOPMENT NEEDS OF NINES: IMPLICATIONS FOR YOUR PROGRAM

The Nines' COD assessment data provides some insights into students' level of achievement on the five broad COD objectives:

I. Prepare for making career decisions.

II. Improve career and occupational capabilities.

III. Possess skills that are generally useful in the world of work.

IV. Practice effective work habits.

V. Have positive attitudes toward work.

These broad objectives have sub-objectives, many of which were assessed by exercises in the COD assessment (see pp. 3-4).

This section is intended to provide a structure for you and other staff in your building to review the specific results of the Nines' COD assessment, and to draw implications of these findings to your career development program. As you work with these results, it is important to remember that they are for a national sample of Nines with sub-group analysis by geographic region (NE, Cent., West, SE), sex (males and females), race (others, blacks, whites), and parent educational level (unknown, No-HS, Some-HS, Grad-HS, Post-HS). You may want to complete some local assessment procedures to identify how similar your students are to this national sample. See the first section for information about how your district can obtain and use the COD exercises.

Throughout this section, COD results are summarized and career development program implications are suggested. The next section provides a summary of the COD assessment data. You are encouraged to continue the process of drawing implications by discussing these results in your own career development program planning sessions. The implications stated here are intended as a beginning to stimulate your planning. Only you and other staff members in your building can design the specific career development program activities which are appropriate for your own student population.

OBJECTIVE I: PREPARE FOR MAKING CAREER DECISIONS

For Nines, this objective assessed the beginning awareness of abilities and interests, of the requirements and duties of common occupations, and of the fact that some day they will need to accept adult roles.

KNOW OWN CHARACTERISTICS RELEVANT TO CAREER DECISIONS

The assessment results help to provide a clearer understanding of Nines' self-perceptions of their abilities and limitations, their efforts to evaluate and improve their abilities and limitations, the methods they use to evaluate their abilities and limitations, the methods they use to improve their abilities and limitations and their self-perceptions of their interests.

Self-Perceptions of Abilities and Limitations

Result 1: Most Nines can state two things they can do well (strengths) and two things that they cannot do well

(limitations). It is, however, more difficult for them to state their limitations than their strengths.

Result 2: More males than females are able to list their strengths. More whites than blacks are able to list both strengths and limitations. More in the Post-HS group than the No-HS group are able to list both strengths and weaknesses.

Result 3: Nines descriptions of their strengths and limitations tend to cluster in the categories of group sports, individual sports, art/musical, and school or academic. Males responded more often than females in the categories of group and individual sports. Females responded more often than males in the areas of art/music and school or academic.

Implications: An important aspect of career development is understanding one's own strengths and limitations. Although Nines are too young to relate these directly to occupational requirements, they should be able to identify activities they can and cannot do well. Many career development programs have objectives related to this aspect of self understanding. The COD assessment indicates that Nines are able to identify strengths and limitations. However, it is important to note that they have more difficulty stating their limitations. Program activities are needed to help this age group accept and feel comfortable with limitations as well as strengths. As Nines participate in a variety of activities, it will be helpful if they are given the opportunity to identify and talk about those which they do not do well. They should be encouraged to participate in a wide range of activities rather than only those which they are able to do well. Special attention should be made to provide blacks and students from lower parent

educational levels opportunities to identify their strengths and weaknesses. These groups, in particular, need to be provided with a variety of activities, and assisted in the development of skills in evaluating their own behavior in a variety of situations.

Sex differences are marked with males concentrating their activities in the areas of group and individual sports. Females' activities were more distributed but there was heavy emphasis in the areas of art/music and school or academic. You and others on your staff will want to make a decision about whether to design program activities to reduce these sex differences. If this is a desirable goal for your school, it will be important to design activities which encourage both males and females to participate in activity areas with which they are unfamiliar.

Efforts to Improve Abilities and Limitations

Result 4: While most Nines can identify something they would like to do better, only about two-thirds have actually tried to find out how to do it better.

Result 5: Blacks and students from the No-HS group are less apt to be able to state something they would like to do better or to try to find out how to improve their abilities and limitations.

Implications: Belief in one's capacity to grow and change is an important aspect of career development. While Nines are able to give self-evaluations of the strengths and limitations, they have more difficulty identifying and using methods to improve their strengths and limitations. This is particularly evident for

blacks, and students from the No-HS group. This means that career development programs need to provide structured experiences in which students are able to receive assistance and be successful in changing their behavior in directions which they have determined. This might be accomplished as part of the ongoing instructional program or by having students set individual out-of-school learning goals on which they can be monitored by teachers, counselors, parents and peers.

Methods of Evaluating Abilities and Limitations

Result 6: When asked how well they do a preferred activity compared to others, more males indicate that they do it better while more females indicate that they do it worse.

Result 7: Nines have limited methods of evaluating their own abilities. Many are unable to do this.

Result 8: Females more often judge by what others say or by tests and grades while males more often judge by personal comparison or comparison with a piece of data.

Implications: It appears that Nines tend to evaluate their own strengths and limitations on a subjective basis. Many were unable to state a specific method which could be used for evaluating their abilities. There are startling sex differences with females feeling that they do activities worse than others their age, and using external data such as the opinions of others and tests and grades to confirm their self-evaluations. These results indicate that career development programs need to teach students a variety of methods which can be used to evaluate

their strengths and limitations. Special emphasis should be given to instructional methods which provide role models of behavior as a learning technique thus helping students learn to evaluate their behavior independently from external evaluation sources such as grades or opinions of others. Girls need special assistance in developing more positive and independent self-evaluation. They should be encouraged to feel more comfortable in expressing positive self-evaluations which are realistic in light of existing data, and need learning experiences where they are forced to evaluate their own behavior without relying on the opinions of others.

Methods of Improving Abilities and Limitations

Result 9: Only about two-thirds of Nines have tried to find out how to do their preferred activity better. About one-third of those who have are unable to give an acceptable method for improving their ability. Most of those who have used an acceptable method have asked someone. Very few have used methods such as stored sources, self-evaluation and correction, and formal lessons. Blacks and the No-HS group are less apt to use acceptable methods of improving their abilities.

Implications: If students are to continue to improve and expand their abilities throughout the life span, they need practice using various self-improvement methods at an early age. Many nines are unaware of these methods, and those who are aware tend to rely on asking others how to improve their abilities. Career

development programs need to provide training and practice in the use of such methods as stored sources and self-evaluation and correction. Students should be trained in the use of library and media resources which can provide information needed to improve their behavior. Another important technique which students should learn is self-evaluation and correction. They should be provided with experiences where they can review their behavior and develop strategies for improving the behavior. Blacks and the No-HS group need special assistance in learning methods of improving their abilities. These groups were low overall and particularly low in the use of formal lessons. The school should provide a variety of extra-curricular learning situations for these students, and should inventory and communicate to them other community learning experiences such as recreation programs. Developing a belief within students from these groups that they can improve their abilities is important to the career development process.

Self-Perceptions of Interests

Result 10: As with abilities, most Nines are able to state strong and weak interest activities but fewer are able to state weak than strong interests.

Result 11: More males than females are able to state weak interest areas. More students in the Post-HS group than in the No-HS group are able to examine their activities in terms of strong and weak interests.

Result 12: When asked to state their strong and weak interest activities, Nines' answers cluster in the sports-games area. More males responded in the group sports area than in any other single area. Females' responses are more widely distributed among the group sports, individual sports, playground games, box and card games, musical/artistic, and read and go to the library areas.

Implications: Although the exercise was somewhat leading, it is important to note that Nines' interests tend to cluster in the sports/games area. Females seem to describe a broader range of interests than males. This means that although Nines can state their interests, they are analyzing these interests in terms of narrow categories when compared to their total life experiences. Adequate career development relies on the development of interests based on a range of experiences. According to the results, it appears that Nines have limited experiences and are stating narrow interests based on this limitation. Career development programs need to design activities which encourage students to systematically study how they use their out-of-school time and plan for involvement in a wider range of activity areas. This is particularly true for boys. The development of interest patterns can be influenced by this wider exposure to activity areas.

KNOW THE CHARACTERISTICS AND REQUIREMENTS OF DIFFERENT OCCUPATIONS

The assessment results help provide a clearer understanding of the Nines' knowledge of the duties and requirements of highly visible occupations.

Result 13: Nines generally have high knowledge of the duties of visible occupations.

Result 14: Nines perform higher on the multiple choice exercise than on the open-ended exercise. This may indicate that the multiple choice exercise is a more pure measure of occupational knowledge while the open-ended exercise involved communication skills.

Result 15: There is some evidence that there are sex differences in the knowledge of specific occupations. For example, more males can identify newscaster while more females can identify secretary. This tends to support sex stereotyping of occupations as an influence on occupational knowledge.

Result 16: For the first exercise, blacks and the No-HS group scored consistently lower than the total group on occupational knowledge. For the second exercise, the SE group and the No-HS group scored consistently lower. The main generalization which can be made is that parent educational level tends to relate to occupational knowledge.

Implications: It has been a general practice for elementary school career development programs to use career awareness activities which focus on highly visible occupations such as school and community helpers. The results indicate that Nines have high knowledge of the duties and requirements of these occupations.

This may be the result of existing programs. However, it seems that program designers might consider presenting information about families of occupations highlighting the visible ones but also introducing students to a broader range of occupations available within our society. An exception to this might be students from lower parent educational levels, who may still need more assistance in identifying highly visible work roles. This assessment tends to support the idea that sex stereotypes exist, and that males and females will consider some occupations as being more appropriate than others because of subtle information they receive from their environment. This supports the current interest in developing career information materials and career development activities which present an objective view of occupations. You will probably want to carefully review materials and program activities to be sure that they are sex-bias free before you use them in your career development program.

OBJECTIVE II: IMPROVE CAREER AND OCCUPATIONAL CAPABILITIES

Although Nines are not involved in training experiences which will relate directly to adult employment, they are involved in a variety of activities which constitute work in the sense that they are purposeful activities which contribute to the individual, family, and/or society. Also, they have the opportunity to be involved in activities which can help them develop a broader perspective of various work roles within society. The COD assessment results provide information about Nines' perceptions of their own work activities, and their exposure

to experiences which can broaden their occupationally relevant knowledge and skills.

Work Done at Home

Result 17: Most Nines are able to state types of work they do at home. This means that they are aware that activities which they do at home are a type of work activity.

Result 18: Fewer males, blacks, and No-HS students are able to state work they do at home. Since it is doubtful that all of these groups actually do less work at home, the differences are probably due to their inability to perceive these home activities as work and their difficulty with the exercise itself.

Implications: Career development programs might utilize activities which help Nines analyze a variety of tasks they do at home, and help them realize that these activities do contribute both to themselves and to other family members. Such program procedures can provide a logical basis for helping students look at activities which they prefer and in which they are skilled.

Self-Perception of Specific Work Related Skills

Result 19: One exercise (200019) listed 26 activities which Nines might have done without assistance. Most Nines have done at least ten of these without help indicating that they are involved in a variety of activities which are work related.

Result 20: These activities were clustered according to household skills and maintenance-building skills. Females and blacks score

higher in the household skills area, and males and whites score higher in the maintenance-building skills area.

Implications: These results are closely related to but more specific than the previous results. When given a specific list of work related activities, most Nines indicated that they had done many of the activities. This means that you might want to use either the activities listed in this exercise (see p. 51) or develop a new list of activities to stimulate students' thinking about the variety of skills which they have which are work related. This approach of using current, out-of-school activities as a way of looking at one's own skills, abilities and interests can help students realize that much of the data about themselves which is needed for making a variety of career decisions over the life span is readily available to them if they learn to analyze the implications of current activities for future planning.

There were important sex and racial differences for this exercise. Higher percentages of females and blacks indicated that they had done routine household tasks, such as make beds and iron clothes, while higher percentages of males and whites indicated that they had done maintenance-building tasks, such as paint an object or build from wood. Your staff will want to discuss the implications of this finding for your program. You may well decide that you want to design experiences which allow all groups of students to experience a broad range of activities. This might be done through extra-curricular

activities or through experiences in the classroom where students have the opportunity to explore a variety of activities. Also, it will be important to communicate that it is appropriate for any particular student to try any activity without fear of judgement from students, teachers or family.

Participation in Out-of-School Training and Lessons

Result 21: Only about 60% of Nines have participated in out-of-school learning experiences such as special training and lessons. The SE group, No-HS group, blacks and males have had fewer such experiences.

Implications: It is important to remember as you plan your program that Nines have had limited out-of-school learning experiences. This means that many students will perceive school as their only structured learning experience. An important behavior for students to develop as they grow older will be the ability to identify a variety of learning experiences which they can utilize throughout their lifetime. A first step toward insuring students' awareness of these learning resources is to help them inventory the resources which are available to them, and to encourage them to participate in these learning experiences. This is particularly important for the SE group, No-HS group, blacks and males who indicated that they had fewer experiences. For these groups, there is probably the dual need of both helping them understand that such activities, for example, recreation program, are a type of learning experience and encouraging them to participate in such learning experiences.

Visits to Places of Interest in the Community

Result 22: One exercise (200018) asked students if they had visited eleven places of interest in the community. Most Nines have visited at least four of these places but only the No-HS group have visited fewer of these places.

Implications: As with the previous exercise, it is a mistake for school personnel to assume that students have had certain types of experiences. While visits to places of interest in the community are available as an out-of-school experience for some students, this is less true for other groups. Awareness of various work roles in society can be increased through such visits; also, students can gain a clearer understanding of their interest in work activities through these visits. If your staff feels that community visits are an important learning experience, it may well be necessary for the school to make these experiences available to many of its students.

OBJECTIVE III: POSSESS SKILLS THAT ARE GENERALLY USEFUL IN THE WORLD OF WORK

A major focus of the first COD assessment was on the extent to which students possess specific skills that are generally useful in the world of work. Fewer such exercises were administered for Nines than for the other age groups. However, a group of exercises did assess specific numerical, communication, manual-perceptual and interpersonal skills of Nines. In all cases, these exercises measured skills which can be directly applied in a variety of adult work roles.

For the purpose of helping you draw implications from these exercises, they have been grouped into broad clusters. The first cluster includes numerical, communication and manual-perceptual skills all of which relate directly to existing school curriculum areas. The second cluster includes interpersonal skills which are less specific to school curriculum.

NUMERICAL, COMMUNICATION, AND MANUAL-PERCEPTUAL SKILLS

Result 23: Only about one-half of Nines are able to give correct responses for the numerical skills exercises which measured their skills in using measurement equivalents, ratios and proportions.

Result 24: The SE and West group, females, blacks and No-HS group score lower than the total group for the numerical skills exercises while the NE group, males, whites and the Post-HS group score higher.

Result 25: Only about one-half of Nines are able to give the correct responses to the communication skills exercises related to communicating understandably and following written and spoken instructions.

Result 26: Regional differences are not evident for communication skills. Sex differences are evident only in the area of communicating understandably, where females performed higher. Blacks and the No-HS group score lower than the total group while whites and the Post-HS group score higher for all communication skills exercises.

Result 27: Only about one-half of Nines are able to give correct responses for the manual-perceptual skills exercises which measured their skills in reading displays and scales.

Result 28: Blacks and the No-HS group are lower and whites and the Post-HS group are higher than the total group for the manual-perceptual exercises.

Implications: There has been considerable discussion about the need to develop curriculum materials and learning experiences which help students recognize the relationship between existing school curriculum areas and skills which are needed in a variety of occupations. The COD exercises which assessed this area indicate that only one-half of the total national group are able to give correct responses to such exercises. The results further indicate that blacks and the No-HS group perform lower than the total group, and that there is a trend for males to perform higher on numerical skills and females to perform higher on communication skills.

A first step in determining the implications of these findings for your program is for your staff to look at the exercises and determine whether skills such as those represented in the exercises are appropriate in light of your current school curriculum. (See the Section III for a description of the exercises.) It may be that the types of skills measured are a part of your curriculum but that age nine is too early for such learning to have occurred.

A second step is for your staff to carefully analyze your existing curriculum for this age group and to inventory the

extent to which you can identify skills directly related to occupational requirements as a priority in your curriculum. If your curriculum seems deficient in this area and if you feel it should be improved, you might well want to develop new learning experiences and curriculum objectives. Because of the current emphasis on career education, several publishers are developing curriculum materials which integrate the learning of basic skills with an understanding of how these skills are utilized in the world of work. These materials stress skills which are highly applicable in the world of work and provide practice applications which help students understand how the skills are used in the world of work. You may well want to be alert to these materials and consider using them in your instructional program.

INTERPERSONAL SKILLS

Result 29: Most Nines are able to give acceptable responses for the interpersonal skills exercises which measured their skills in working effectively with peers, co-workers and others.

Result 30: The Post-HS group have higher percentages of acceptable answers than the total group.

Implications: While the school is probably a major influence in the development of interpersonal skills, it is more difficult to relate learning in this area to a specific curriculum area. In general, Nines were able to give acceptable responses to the interpersonal skills exercises which asked them to give

suggestions about how they would help people in various situations. The Post-HS group scored higher in this area which might be explained by the previous findings that they also score higher on other skills exercises. Perhaps, this group is more often called upon to assist others because of their generally higher achievement level or may learn interpersonal skills in their home environment.

The interpersonal skills exercises asked Nines how they would help others in situations which would be familiar to them such as helping another student with school work. Since students scored high on these exercises, the next level of learning in this area might seem to be to help them understand that they do have these skills and that these skills will be applicable to a variety of life experiences both now and in the future. Such program activities as role playing work situations or interviews with workers who can explain how these skills are important in work situations are examples of activities which can help Nines recognize the general importance of these interpersonal skills.

OBJECTIVE IV: PRACTICE EFFECTIVE WORK HABITS

The COD assessment examined two areas related to practicing effective work habits. These were to assume responsibility for own behavior and to use initiative and ingenuity in fulfilling responsibilities. These two behaviors are important not only in adult work situations but also in learning situations at a younger age. The exercises used situations which are familiar to Nines.

ASSUME RESPONSIBILITY FOR OWN BEHAVIOR

Result 31: Most Nines do not perceive themselves as being responsible for their own behavior.

Result 32: In an exercise (401003) where a child did not complete a task for her mother because she stopped to talk to a friend, most students indicate that it was the friend's fault. Males and blacks see the friend at fault because he talked too long. Females and whites saw the friend at fault because he would not let the other child leave.

Result 33: Many Nines are unable to give an acceptable method of changing an unfair school rule. They either give no method or give the unacceptable method of talking to someone without direct authority to change the rule.

Implications: A major outcome of career development programs should be to help students realize that they will need to assume responsibility for a variety of career decisions throughout their lifetime. The results of the COD assessment indicate that many students at age nine do not see that they are responsible for their own behavior. Designing activities to strengthen their sense of responsibility for self might build on two major approaches. First, students can be presented with situations in the lives of other people through such techniques as role playing, stories or dramatics. These can be helpful in providing the stimulus for discussions about the need for individuals to assume responsibility for their own behavior. Secondly, students need to be provided with experiences where they can make their own decisions

and follow through on those deicsions. Through classroom guidance, students can set goals related to interpersonal relationships or to tasks which they want to accomplish. Following goal setting, they can receive feedback about the extent to which they have assumed responsibility by independently acting to reach their goals.

USE INITIATIVE AND INGENUITY TO FULFILL RESPONSIBILITY

Result 34: Most Nines show resourcefulness in completing a task. When given a task of folding paper according to instructions, they are able to complete the task correctly within a specified time period.

Result 35: Only about one-half of Nines give an acceptable response for an exercise related to seeking assistance when needed. When unclear about how to complete a job, they are hesitant to seek assistance from the teacher who had assigned the job. They either cannot give an answer or indicate they would seek help from someone other than the teacher.

Result 36: Fewer of the SE group, males, blacks and the No-HS group and more of the NE group, females, whites and the Post-HS group would seek help from the teacher.

Implications: Nines seem to be able to attend to a task which has been assigned to them when the instructions for how to complete the task are clear. However, fewer Nines are able or willing to take the initiative to seek assistance in completing a task which is unclear to them. This indicates that career development programs need to help students develop skills in analyzing

situations to accurately identify individuals who can help them, and develop skills in seeking assistance from those people. This need is particularly strong for the SE group, males, blacks and the No-HS group who were less apt to seek direct assistance from those who can help them. Programs should include activities which allow students the opportunity to identify the type of help they need and to practice the process of asking others for help. It is also important to communicate the attitude that, although each person needs to assume responsibility for his/her own behavior, all people need assistance at times and it is appropriate to ask others for help.

OBJECTIVE V: HAVE POSITIVE ATTITUDES TOWARD WORK

The COD assessment focused on exploring the extent to which Nines seek personal fulfillment through their own achievements. Two future time oriented questions were used which required Nines to analyze both who should make decisions about their future and what they ideally would like to do in the future.

Result 37: Many Nines see the responsibility for selecting what work they will do for a living as belonging to someone other than themselves. While 40% see this as their own decision, the others see it as their parents' decision, someone other than their parents' decision, or have no idea whose decision it is.

Result 38: Blacks and the No-HS group are less apt to see their future work as their own decision than whites or the Post-HS group.

Result 39: When asked if they would like to do certain activities if they were a millionaire, Nines are most interested in learning

new things and traveling, somewhat interested in giving to a charity, and less interested in building houses and gardens and raising race horses.

Result 40: Students from the No-HS group are less able to respond positively to these activities than students from the Post-HS group.

Implications: A major goal of career development programs is to help students realize that they need to assume responsibility for a variety of career decisions, and to help them develop a belief in the concept that work activity can be personally meaningful. Most Nines do not feel that the choice of work will be their independent decision. This may be a function of their age but it is still important for career development programs in the elementary school to design activities which help students understand their role in life decisions. This can be accomplished only through a comprehensive program which helps students realize first that they are unique individuals, second that there are a variety of work roles in our society, some of which will be more satisfying than others, and third that they are better qualified to make their own decisions than any other person although they will find consultation with others an important part of the decision process.

The question asking Nines what they would like to do if they were a millionaire measures both students' preferences for activities and their belief in the availability of opportunities. It is important to note that the No-HS group had more difficulty responding to this question. This probably means that they have

less belief that there are opportunities in their life. This group needs special career development activities to help them realize the range of opportunity which is available. They need to be exposed to successful role models from backgrounds similar to theirs, to become aware of the types of assistance which are available to them in meeting career goals, and to have the opportunity for successful experiences which will strengthen their belief in their own capabilities.

SUMMARY

This section has provided a summary of forty results from the COD assessment which can help you better understand the current status of Nines on five broad career development objectives. These results represent baseline data about areas of strengths and weaknesses. In addition, implications have been suggested. These implications statements are intended to stimulate your thinking about possible career development program activities which will respond to the career development needs of Nines as identified by the assessment. COD data provide a unique opportunity for you and others on your staff to design programs based on measured needs. As was suggested at the beginning of this section, you may well want to verify the extent to which this COD data from a national sample reflects your own student group by administering the COD exercises in your school district. The next section provides a description of the released COD exercises and the assessment data from these exercises arranged by COD objectives.

SECTION III

SUMMARY OF COD ASSESSMENT DATA FOR NINES

This section provides a fuller description of the COD assessment data. Data for all of the released exercises are presented organized by the five broad COD objectives. This section provides the formal information to help you better understand the assessment: (1) the sub-objectives which were assessed, (2) the nature of the exercises which were used, (3) the percentages of Nines who gave acceptable responses and who responded in specific response categories, and (4) important differences in percentages for various student sub-groups. Those who are interested in thoroughly understanding the COD assessment will want to review this section carefully. Those who are more interested in the implications of the COD assessment results for designing career development programs may want to simply scan this section to gain a feel for the nature of the exercises and the response patterns. The previous section, "Career Development Needs of Nines: Implications for Your Program," has summarized the COD data by summarizing the results and suggesting implications of these results for career development programs.

OBJECTIVE I: PREPARE FOR MAKING CAREER DECISIONS

The first broad COD objective assessed was, "Prepare for making career decision." This objective had four sub-objectives:

A. Know own characteristics relevant to career decisions.

B. Know the characteristics and requirements of different career and occupations.

C. Relate own personal characteristics to occupational requirements.

D. Plan for career development or change.

The assessment for Nines contained four items to measure sub-objective A and two items to measure sub-objective B. The other sub-objectives were not assessed.

KNOW OWN CHARACTERISTICS RELEVANT TO CAREER DECISIONS

Self awareness is a major emphasis in most career development programs. An understanding of self characteristics such as abilities, achievements, interests and values is seen as central to the career development process. The COD assessment contains four items related to Nines' perceptions of their own abilities, interests and strategies for self-improvement.

Self-Perceptions of Abilities and Limitations

One exercise (101003) examined students' perceptions of their abilities and limitations:

A. People can do some things better than others. What are two things that you can do well?

B. What are two things you have tried that you do NOT do very well?

See Table 1, p.66

Table 1 gives the percentages of Nines who gave acceptable responses for both parts of the exercise. Most were able to state two

things they can do well. Slightly less, but still the majority, were able to state two things they cannot do well.

Group Differences

There were differences among sub-groups in responses for both parts of the exercise.

1. A higher percentage of males (84%) and a lower percentage of females (82%) were able to state things they can do well. There were no differences in the percentages of males and females in their responses to things they cannot do well.
2. Whites had higher percentages for both parts of the exercise than blacks. For Part A, 84% of whites listed two acceptable responses compared to 80% of blacks. For Part B, 71% of whites listed two acceptable responses compared to 67% of blacks.
3. Percentages for both parts of the exercise tended to increase with parent educational level. For Part A, 89% of the Post-HS group gave two acceptable responses compared to 84% of the No-HS group. For Part B, 76% of the Post-HS group gave two acceptable responses compared to 62% of the No-HS group.

Response Categories

The responses for both parts of the exercise were scored according to the following response categories: games, group sports, individual sports, art/musical, hobbies and crafts, school or academic, and household skills.

See Table 2, p.66

Table 2 gives the percentages for the response categories. A review of the response category indicates that Nines self-perceived abilities and limitations clustered in the categories of group sports, individual sports, art/musical, and school or academic with few students responding in the categories of games, hobbies and craft, and household skills.

Group Differences

See Table 3, p.67

As Table 3 indicates, the differences among sub-groups for response categories were most marked for females and males. The difference between males and females in response categories can be summarized as males responded more often to the group sports category for both Parts A and B; males and females responded frequently to the individual sports category with males indicating more often that they cannot do individual sports well; and females responded more frequently to art/musical, school or academic, and household skills than males for both Parts A and B.

Efforts to Evaluate and Improve Abilities

Two exercises assessed Nines behavior related to evaluating and improving their own abilities. The first (101005) asked students five questions:

A. What is ONE thing you enjoy doing that you would like to do better?

B. How well do you do this compared to other people your age?

C. How do you know how well you do this?

D. Have you tried to find out how you could do it better?

D. How did you try to find out?

The second (101013) asked students questions:

A. Have you ever asked someone how you could play some game better or do some work better?

B. What was it you wanted to know how to do better?

Parts A and D of 101005 and Parts A and B of 101013 assessed whether students had evaluated their abilities and sought help to improve them.

See Table 4, p.67

Table 4 indicates that most Nines can state something which they would like to do better while only about two-thirds have tried to find out how to do that thing better. Also, only about two-thirds have tried to improve their ability to do something by asking another person and only about half were clear about what they had tried to improve by seeking help from another person.

Group Differences

There were differences among sub-groups in responses for these parts of the exercises.

1. There were few differences between males and females except that a higher percentage of males than of females had asked others how to do something better.
2. There were several racial differences. A high percentage of whites and a lower percentage of blacks were able to state one thing that they would like to be able to do better. Also, more whites and fewer blacks had tried to find out how to do that thing better.
3. Among parent education groups, percentages tended to increase with parent educational level. More students in the Post-HS group than in the No-HS group could list one thing that they would like to do better. Also, more students in the Post-HS group than in the No-HS group had tried to find out how to do that thing better.

Response Categories

Students' responses to Part A of exercise 101005 asking them to state one thing that they would like to do better and to Part B of exercise 101013 asking them if they had asked someone how to do that thing better were categorized by type of response. The response categories (same as for exercise 101003) were games, group sports, individual sports, art/musical, hobbies and crafts, school and academic, and household skills.

These responses followed the same pattern as in exercise 101003 with high percentages of Nines responding in the group sports, individual sports, art/musical, and school and academic categories. Sex differences were also consistent with males responding most often to

group sports; both males and females responding often to individual sports; and females responding more often to art/musical, school and academic, and household skills.

Methods of Evaluating Abilities

Part A of exercise 101005 asked students to state one thing they would like to be able to do better. Parts B and C of that exercise assessed the methods which Nines use to evaluate their own abilities:

B. How well do you do this thing compared to others your age?

C. How do you know how well you do this?

Responses for Part B asked students to indicate whether they did the thing better, the same, or worse than others their age.

See Table 5, p.68

Table 5 highlights the differences for self-assessment of how well Nines feel they do compared to others their own age.

1. About three-fourths of the total group were able to make this comparison.
2. Sex differences were present with a higher percentage of males than females stating they do it better, and a higher percentage of females than males stating they do it worse.

Part C asked students to indicate how they knew how well they did the thing. This assessed methods which Nines use to support their self-evaluations of their abilities. Responses were categorized according to four acceptable responses: (1) judge by what others say, for example, "Well, my dad tells me sometimes;" (2) judge by test and

grades, for example, "'Cause I got an A in art;" (3) personal comparison with others while doing the same tasks, for example, "I beat other children;" and (4) comparison or piece of data indicating ability, for example, "Because I have more trophies than anyone else around."

See Table 6, p.68

Table 6 shows that Nines most frequently evaluate their ability by personal comparison or piece of data, followed by judging by what others say, judging by tests and grades, and judging by personal comparison while doing the same task. More females than males support their self-evaluations by what others say or by tests and grades, and more males than females utilize personal comparison or piece of data.

Methods of Improving Abilities

Part E of exercise 101005 asked Nines how they have tried to find out how to do something better. This assesses resources students use to strengthen their abilities. Responses were scored in four categories: (1) verification from a live source, for example, "Asking my coach and practicing;" (2) verification from a stored source, for example, "Look in the library for books;" (3) self-evaluation and/or correction, for example, "I tape myself and play it back" and (4) formal lessons, for example, "Go to the Y and take lessons."

See Table 7, p.69

Table 7 summarizes the results for this exercise part:

1. Less than half (42%) of the total group were able to state acceptable methods of strengthening abilities.
2. There was a consistent trend for a higher percentage of whites and a lower percentage of blacks to use all methods of improving abilities.
3. There was a consistent trend for a higher percentage of the Post-HS group and a lower percentage of the No-HS group to use all methods except self-evaluation and correction.

Self-Perceptions of Interests

Exercise 101011 asked students two questions:

A. Suppose you have free time to do whatever you want to do. What game, sport, hobby or activity would you MOST like to play or do.

B. What game, sport or hobby would you NOT like to play or do?

Responses were analyzed in terms of the percentages that could give an acceptable response for Part A, percentages that could give an acceptable response for Part B, and percentages responding in nine response categories for Parts A and B.

See Table 8, p.69

Table 8 gives the percentages of Nines who gave acceptable responses for Parts A and B of the exercise. Most students were able to state one thing they most like to do while slightly fewer were able to state one thing they would not like to do. It is apparently more

difficult for Nines to think of things which do not interest them than it is to think of things which do interest them.

Group Differences

There were only slight differences among sub-groups for Part A (things I like to do). Part B (things I would not like to do) showed greater differences.

1. A higher percentage of males (87%) than females (81%) were able to state one thing they would not like to do.
2. A higher percentage of the Post-HS group (87%) than the No-HS group (77%) were able to state one thing that they would not like to do.

Response Categories

The responses for both Parts A and B categorized according to the following response categories: group sports, individual sports, playground games, box and card games, collecting things, musical/artistic, read and go to library, other academic, and home chores and practical skills.

See Table 9, p.70

Table 9 gives the percentages in each response category for Part A and B indicating that Nines strong and weak interests clustered in the categories of group ports, individual sports, playground games, and box and card games. Musical/artistic and read and go to library were also strong interests.

Group Differences

See Table 10, p.70

Differences among sub-groups for response categories for both parts of the exercise were most marked for males and females. The differences can be summarized as males responded more often to the group sports category for both Parts A and B while females responded more often to the individual sports, playground games, box and card games, musical/artistic, and read and go to the library categories for Part A.

KNOW THE CHARACTERISTICS AND REQUIREMENTS OF DIFFERENT CAREERS AND OCCUPATIONS

Knowledge of the characteristics and requirements of a variety of occupations is an important aspect of career development. The development of this occupational awareness can be encouraged at the elementary school level and has been an emphasis in career education. COD contained two exercises which assessed Nines awareness of the main function of highly visible occupations. The results of these two exercises provide data which can help you better understand Nines' current achievement in the area of occupational knowledge.

Correctly Identify Occupational Descriptions

The first exercise (102002) which assessed occupational knowledge contained five multiple choice sub-parts. Each of the five presented a brief description of someone in an occupation including both duties and requirements. For example:

"I wear a white uniform and white shoes. I work in a hospital where I help doctors take care of sick people. I bring medicine to patients and take their temperatures, and do lots of things to make the patients feel better."

The five sub-parts assessed knowledge of the occupations of nurse, mailman, secretary, service station attendant and newscaster.

The total group of Nines performed well on this exercise. Ninety-nine percent had one or more correct, 98% had two or more correct, 95% had three or more correct, and 85% had four or more correct. There were few sub-group differences on overall performance. The only consistent trend was for whites to score higher than the total group and for blacks to score lower.

Sub-Group Differences on Exercise Sub-Parts

See Table 11, p.71

Table 11 gives percentages of Nines who gave correct responses to each of the five sub-parts. Several trends emerge from these data:

1. There are differences in Nines knowledge of the five occupations.
2. There is some evidence of sex differences in knowledge of occupations.
3. There is a consistent trend for whites to score higher than the total group and for blacks to score lower than the total group.

4. There is a consistent trend for parent educational level to relate to performance with the No-HS group scoring lower than the total group and the Post-HS group scoring higher than the total group.

Give Acceptable Occupational Descriptions

The second exercise (102033) which assessed occupational knowledge contained four sub-parts which asked Nines to list three responses for each of the following statements:

What does a mailman do on the job?

What does a store clerk do on the job?

What does a policeman do on the job?

What does a teacher do on the job?

Responses were scored according to the number of responses for each sub-part which were accurate statements of work duties related to the occupation.

See Table 12, p.72

The total group of Nines performed well on this exercise but not as well as on the previous exercise. Table 12 shows percentages of Nines giving both two and three acceptable responses for each of the four occupations. When two out of three correct responses is used as an acceptable criteria, performance is high. When three of three is used, performance is considerably lower. The major sub-group differences were related to parent educational level and geographic area. The Post-HS group scored consistently higher and the No-HS group scored

consistently lower than the total group. The SE group scored consistently lower and the West group scored consistently higher than the total group.

Sub-Group Differences on Exercise Sub-Parts

See Table 13, p.72

Table 13 gives percentages of Nines who gave at least two correct responses to each of the four sub-parts of the exercise. Several trends emerge from these data.

1. There are differences in Nines ability to give acceptable descriptions of the duties of these four occupations.
2. There are differences with both the West and NE groups tending to score higher and the SE group tending to score lower than the total group.
3. There are parent educational level group differences with the total Post-HS group scoring higher and the No-HS group scoring lower than the total group.

OBJECTIVE II: IMPROVE CAREER AND OCCUPATIONAL CAPABILITIES

The second broad COD objective assessed was, "Improve career and occupational capabilities." This objective focused on the extent to which Nines have engaged in activities which will widen their occupationally relevant knowledge and skills. The COD assessment contained four exercises related to this objective. The exercises provide an overview of the number and types of activities in which Nines participate

related to the broad areas of home chores, out of school lessons, hobbies, and community resource visits.

Work Done at Home

The first exercise for this objective (200002) asked the questions:

What work do you do at home?

Responses were scored as acceptable if an actual work activity was given. Students were encouraged to give up to three responses.

See Table 14, p.73

Table 14 gives percentages of Nines who gave at least one and at least two acceptable responses. As the table shows:

1. Most (96%) Nines can state one type of work they do at home with somewhat fewer (71%) stating two.
2. There are consistent sex differences with more females and fewer males than the total group stating work they do at home.
3. There are consistent racial differences with more whites and fewer blacks than the total group stating work they do at home.
4. There are consistent parent educational level differences with more in the Post-HS group and fewer in the No-HS group stating work they do at home.

Self-Perception of Specific Work Related Skills

Another exercise (200019) looked beyond the simple count of work activities done at home, to Nines' self-perception of whether they had done specific work related tasks without assistance from others. This exercise asked Nines whether they have done the following activities without help (percentages are of the total group who had done the activity):

Babysat 51%	Painted some object 80%
Baked a cake or pie 33%	Planted vegetable or flowers 79%
Built something out of wood 62%	Put batteries in a flashlight 91%
Carved something out of wood or soap 54%	Ordered something from a catalog 33%
Changed sheets on a bed 76%	Repaired a bicycle, wagon or roller skates 63%
Cooked a complete meal 27%	Set the time on a clock 78%
Designed something to make 73%	Shopped at the store by self 74%
Drawn a map 57%	Taken own temperature 34%
Invented a game 67%	Used a card catalog in a library 68%
Ironed clothes 57%	Washed dishes 84%
Knitted 37%	Washed windows 78%
Made a toy 49%	Written a letter 86%
Made clothing for self 17%	Written a report 74%

Of the activities, 100% of Nines have done at least one without help, 99% have done at least five, 90% have done at least ten, 63% have done at least 15, and 22% have done at least 20.

Sub-Group Differences

The 26 skills used in this exercise clustered in several areas. Two areas, one related to household related skills and another related to maintenance-building skills, showed a major sex and racial difference.

See Table 15, p.73

Table 15 summarizes these sub-group differences for the household and maintenance-building clusters. As the table indicates:

1. There is a consistent trend for females to score higher and males to score lower than the total group on selected skills in the household cluster.
2. There is a consistent trend for males to score higher and females to score lower than the total group on selected skills in the maintenance-building cluster.
3. There is a consistent trend for blacks to score higher and whites to score lower than the total group on selected skills in the household cluster.
4. There is a consistent trend for whites to score higher and blacks to score lower than the total group in the maintenance-building cluster.

Participation in Out-of-School Training and Lessons

An important source of help in improving capabilities is out-of-school lessons and training. One exercise (200016) asked Nines to list up to five out-of-school learning experiences which they have had.

List any lessons, training or courses you have taken outside of regular school. These can include lessons taken during summer school, summer camp, special classes, music lessons and so forth.

See Table 16, p.74

Table 16 summarizes the responses for the total group and various sub-groups for the exercise. Major trends suggested are:

1. Only about two-thirds of Nines list one out-of-school learning experience. Percentages dropped to 44% for two and 28% for three out-of-school learning experiences.
2. There are geographic differences with a consistent trend for the NE group to have higher percentages and the SE group to have lower percentages than the total group.
3. There are sex differences with females having higher percentages and males having lower percentages than the total group.
4. There are racial differences with whites having higher and blacks having lower percentages than the total group.
5. There is a consistent trend in parent educational level for the Post-HS group to have higher and the No-HS group to have lower percentages than the total group.

Visits to Places of Interest in the Community

A final exercise (200018) assessed the experiences of Nines which have helped them improve their occupational capabilities by asking them

to indicate whether or not they had visited eleven places of interest in their community. The places of interest were a dairy, a newspaper plant, a museum, a zoo, a planetarium, an aquarium, a factory, a college, a farm, a library, and an airport. Of the total group, 100% had visited at least one place, 94% had visited at least four places, 57% had visited at least seven places and 7% had visited at least ten places.

Sub-Group Differences

See Table 17, p.75

Table 17 presents percentages for sub-group indicating these differences:

1. The SE group had consistently lower percentages than the total group.
2. For most of the items, males had higher percentages and females lower percentages than the total group.
3. There is a consistent trend for whites to have higher percentages and blacks to have lower percentages than the total group.
4. The Post-HS group had consistently higher percentages than the total group.

OBJECTIVE III: POSSESS SKILLS THAT ARE GENERALLY USEFUL IN THE WORLD OF WORK

The third broad COD objective assessed was, "Possess skills that are generally useful in the world of work. Sub-objectives included are:

A. Have generally useful numerical skills.

B. Have generally useful communication skills.

C. Have generally useful manual-perceptual skills.

D. Have generally useful information processing and decision-making skills.

E. Have generally useful interpersonal skills.

F. Have employment-seeking skills.

NUMERICAL SKILLS

The assessment had three exercises to measure numerical skills. These exercises focused on Nines' skills in using measurement equivalents, ratios and proportions. The first exercise (301033) asked:

A. 45 seconds = ____ minutes

B. 1 minute = ____ seconds

The second exercise (301034) asked:

A. 30 inches = ____ feet

B. 2 feet = ____ inches

The third exercise (301035) asked:

A. 16 ounces = ____ pounds

B. 1-1/2 pounds = ____ ounces

See Table 18, p.76

Table 18 presents the percentages of Nines giving correct responses for each of the sub-parts of the three numerical skills exercises. As the table indicates:

1. In general, Nines performed low on the three exercises. With the exception of converting one minute to seconds, only 47% or less of Nines gave correct responses to the subparts.
2. There is a strong trend for the SE and a slightly weaker trend for the West group to have lower percentages of correct responses than the total group. The NE group consistently had higher percentages than the total group.
3. There is a consistent trend for males to have higher percentages and for females to have lower percentages than the total group.
4. There is a consistent trend for whites to have higher percentages and blacks to have lower percentages than the total group.
5. There is a consistent trend for the Post-HS group to have higher percentages and the No-HS group to have lower percentages than the total group.

COMMUNICATION SKILLS

Three exercises were used to assess the communication skills of Nines. One exercise (302015) focused on Nines' skills in communicating understandably. During the exercise, Nines addressed an envelope after being given the information needed to complete the task. Their responses were scored based on the accuracy of the return name, return address, return city, name, address, city-state-zip.

Two other exercises explored Nines' skills related to understanding spoken and written instruction. Spoken instructions were used

in exercise 302010 in which students were given a map, given instructions orally, and asked to mark the spot on the map indicated by the instructions. Another exercise (302020) assessed skills in following written instructions by giving the students a name to find in a telephone book.

See Table 19, p.77

The results of the communication skills exercises are summarized in Table 19 indicating the following:

1. Only about 50% of Nines were able to give correct responses to these communication skills exercises.
2. Regional differences were less pronounced than in the numerical skills area with differences being specific to the exercise.
3. Sex differences are present only in the exercise which related to communicating understandably where females were higher and males lower than the total group.
4. Racial differences were present with whites higher and blacks lower than the total group.
5. Parent educational level differences are present with Post-HS higher and No-HS lower than the total group.

MANUAL-PERCEPTUAL SKILLS

Two exercises related to manual-perceptual skills focused specifically on Nines' skills in reading displays and scales. The

first (303008) had students use a ruler to measure a line. The second (303011) had them read a point on a two-cup measuring cup.

See Table 20, p.77

Table 20 which summarizes the results for manual-perceptual skills indicates that:

1. Less than 50% of Nines were able to correctly perform the two exercises.
2. Racial differences are present with whites higher and blacks lower than the total group.
3. Parent educational level differences are present with the Post-HS group higher and No-HS group lower than the total group.

INTERPERSONAL SKILLS

The interpersonal skills exercises focused on assessing skills in working effectively with peers, co-workers, and others. The first exercise (305008) had two parts:

A. Have you ever helped anyone with school work that he could not do by himself?

B. What did you do to help that person with his school work?

The other exercise (305009) gave the students the stem:

Suppose you knew someone who spoke almost no English. How would you help him to get along?

Students were then encouraged to give five answers to the exercise.

See Table 21, p.78

Nines' performance on the interpersonal skills exercises are summarized in Table 21:

1. Most Nines were able to give acceptable responses on the interpersonal skills exercises.
2. Racial differences were present only in the second exercise where whites were higher and blacks lower than the total group.
3. There was a consistent trend for the Post-HS group to score higher and the No-HS group to score lower than the total group.

OBJECTIVE IV: PRACTICE EFFECTIVE WORK HABITS

The fourth broad COD objective assessed was, "Practice effective work habits." This objective had five sub-objectives:

A. Assume responsibility for own behavior.

B. Plan work.

C. Use initiative and ingenuity to fulfill responsibilities.

D. Adapt to varied conditions.

E. Maintain good health and grooming.

This assessment had two exercises related to the sub-objective A and two exercises related to sub-objective C. The other three sub-objectives were not assessed.

ASSUME RESPONSIBILITY FOR OWN BEHAVIOR

Two exercises explored the extent to which Nines know they are responsible for their own behavior. The first (401003) presented this cartoon.

See Cartoon, p.81

It then asked students to indicate whose fault it was that Mary did not get the bread by choosing one of the following:

Choice 1: Tom's fault because he talked too long.

Choice 2: No one's fault because Mary didn't want to be rude to Tom.

Choice 3: Tom's fault because he wouldn't let Mary leave.

Choice 4: Mary's fault because she talked too long (correct answer).

See Table 22, p.78

Table 22 summarizes Nines' responses to the exercise indicating:

1. Only 5% of Nines gave the correct response. Most saw someone else (Tom) responsible for Mary's behavior.
2. Males and blacks tended to see Tom as responsible for Mary's behavior because he took too long.
3. Females and whites tended also to see Tom as responsible but saw him as more forcefully controlling by not letting Mary go.

A second exercise (401013) gave information about Nines behavior related to observing rules and regulations while questioning those they believe are unfair. It read:

> Suppose your school made a new rule that you thought was unfair. What would you do? (Give two things).

Nines had difficulty stating acceptable methods of changing an unfair rule with 38% stating one acceptable method and 25% stating two acceptable methods. Acceptable responses reflected several methods of seeking change including: protest or petition, discuss with someone with authority, seek aid of elected representative, talk with peers, and discuss with someone without direct authority.

Most Nines who had given acceptable responses (35%) indicated that they would discuss the rule with an authority such as a principal. The next highest category was to discuss it with someone without direct authority such as a parent (9%), followed by talking with peers (4%), and protest or petition (2%).

USE INITIATIVE AND INGENUITY TO FULFILL RESPONSIBILITIES

Another aspect of practicing effective work habits is using initiative and ingenuity to fulfill responsibilities. Two exercises related to this area.

The first (403004) related to Nines' resourcefulness in completing a task. They were given a model of two pieces of paper which had been folded and stapled, and were asked to do the same with two other pieces of paper. Their product was scored according to the criteria: papers folded, folded in the correct place, and stapled in the correct place. Most Nines (93%) completed at least two parts of the task correctly.

Females (95%) scored higher and males (91%) scored lower than the total group.

A second exercise (403005) examined Nines' willingness to seek assistance when needed. It asked the question:

> Suppose you are the only person given a job to do by your teacher. You are to get the job done by tomorrow but you don't quite understand just what it is that you are to do. What would you do to get the job done?

The acceptable response was to ask the teacher for clarification of the job. An interesting unacceptable response was to ask or get help from someone other than the teacher.

See Table 23, p.79

Table 23 presents the results of the exercise indicating that:

1. Only about half of the Nines would seek help from the teacher.
2. About one-fourth of the Nines selected the unacceptable response of asking another person about the job.
3. Regional differences indicate that a higher percentage of the NE group and a lower percentage of the SE group would ask the teacher.
4. A higher percentage of females and a lower percentage of males would ask the teacher.
5. A higher percentage of whites and a lower percentage of blacks would ask the teacher.

6. Parent educational level differences existed with a higher percentage of the Post-HS group and a lower percentage of the No-HS group indicating they would ask the teacher.

OBJECTIVE V: HAVE POSITIVE ATTITUDE TOWARD WORK

The fifth broad COD objective assessed was, "Have positive attitude toward work." This objective had four sub-objectives:

A. Recognize the basis of various attitudes toward work.

B. Hold competence and excellence in high regard.

C. Seek personal fulfillment through own achievements.

D. Value work in terms of social goals.

This assessment had two exercises related to sub-objective C. The other three sub-objectives were not assessed.

SEEK PERSONAL FULFILLMENT THROUGH OWN ACHIEVEMENTS

One exercise (503011) asked:

Suppose you had to work for a living. Who should make the final decision about the kind of job you would take?

Acceptable responses were either the student deciding alone, or the student deciding in consultation with others.

See Table 24, p.79

Table 24 summarizes the acceptable responses indicating:

1. Only 40% of Nines gave an acceptable response.
2. A higher percentage of whites and a lower percentage of blacks gave correct responses.

3. A higher percentage of the Post-HS group and a lower percentage of the No-HS group gave correct responses.

The percentage of Nines giving unacceptable responses is another interesting aspect of this exercise. Twenty percent would have their parents make the decision, 6% would make the decision jointly with their parents, 8% would have someone other than a parent make the decision, and 11% did not know how they would make the decision.

Another exercise (503012) related to seeking personal fulfillment through own achievements asked students if they would enjoy doing the following things if they were a millionaire: building houses and gardens, giving to charity, learning new things, raising race horses, and traveling.

See Table 25, p.80

Table 25 indicates that sub-group differences for the exercise were:

1. There was a range of total group responses with learn new things and travel being higher, give to a charity middle, and build houses and gardens and raise race horses being lower.
2. Compared to the total group, blacks were higher and whites lower on build houses and gardens, and blacks were lower and whites higher on give to charity and raise race horses.
3. There is a consistent trend for the Post-HS group to have higher percentages than the No-HS group to have lower percentages for all exercise parts. This is supported by

summary scores indicating that 89% of the Post-HS group as compared to 74% of the No-HS group gave three or more yes responses for the exercise.

SUMMARY

This section has presented a comprehensive overview of the results of all of the released exercises used in the COD assessment for Nines. Included are a description of the sub-objectives which were assessed, the nature of the exercises, the percentages of Nines who gave acceptable responses, and some of the major differences in response percentages for selected student sub-groups.

TABLE 1

PERCENTAGES OF NINES LISTING STRENGTHS AND LIMITATIONS,
EXERCISE 101003

Acceptable Responses	Part A Can Do Well	Part B Cannot Do Well
One	92	88
Two	80	68

TABLE 2

PERCENTAGES OF NINES USING RESPONSE CATEGORIES,
EXERCISE 101003

Response Category	Part A Can Do Well	Part B Cannot Do Well
Games	5	4
Group Sports	28	26
Individual Sports	31	24
Art/Musical	16	12
Hobbies and Crafts	2	3
School or Academic	39	35
Household Skills	5	7

TABLE 3

SUMMARY OF SIGNIFICANT DIFFERENCES BETWEEN MALES AND FEMALES FOR RESPONSE CATEGORIES, EXERCISE 101003

Response Category	Part A - Can Do Well		Part B - Cannot Do Well	
	Males	Females	Males	Females
Group Sports	42 *	13*	35 *	17 *
Individual Sports	29	33	25 *	22 *
Art/Musical	12 *	21 *	9 *	15 *
School or Academic	34 *	44 *	30*	41 *
Household Skills	2 *	8 *	4 *	9 *

* In all tables, indicates that the percentage for the sub-group is significantly different (differs by more than two standard errors from the total group) than the percentage for the total group.

TABLE 4

PERCENTAGES OF NINES LISTING ACCEPTABLE RESPONSES TO QUESTIONS RELATED TO EVALUATING AND IMPROVING THEIR ABILITIES, EXERCISES 101005 AND 101013

Acceptable Response	Percentage
List one thing you would like to do better (101005-A)	93
Tried to find out how you could do it better (101005-D)	64
Have asked someone how to do something better (101013-A)	62
Stated what it was you asked someone how to do better (101013-B)	49

TABLE 5

PERCENTAGES OF NINES RESPONDING TO SELF-EVALUATION CATEGORIES OF HOW WELL THEY DO COMPARED TO OTHERS, EXERCISE 101005

Response Category	Total Group	Sex	
		Male	Female
I do it better than most my age	38	42 *	35*
I do it the same as most my age	12	12	12
I do it worse than most my age	26	22*	30*

TABLE 6

PERCENTAGES OF NINES RESPONDING TO METHODS OF SUPPORTING SELF-EVALUATION CATEGORIES, EXERCISE 101005

Response Category	Total Group	Sex	
		Male	Female
Judge by what others say	20	18*	22 *
Judge by test and grades	7	5*	10 *
Personal comparison while doing	6	7	5
Personal comparison or piece of data	32	35 *	30 *
Unacceptable or No Response	32		

TABLE 7

PERCENTAGE OF NINES RESPONDING TO METHODS OF STRENGTHENING ABILITIES CATEGORIES, EXERCISE 101005

Response Category	Total Group	Race		Parental Education	
		Black	White	No-HS	Post-HS
Verification from live source	28	24	29	19*	32*
Verification from stored source	6	4*	6*	1*	8*
Self Evaluation and Correction	3	1	3*	3	2
Formal Lessons	4	1*	4*	1*	4*
Unacceptable	22				

TABLE 8

PERCENTAGE OF NINES LISTING STRONG AND WEAK INTERESTS, EXERCISE 101011

Acceptable Response	Part A Most Like To Do	Part B Would Not Like To Do
One	94	84

TABLE 9

PERCENTAGE OF NINES USING RESPONSE CATEGORIES ONCE,
EXERCISE 101011

Response Category	Part A Most Like To Do	Part B Would Not Like To Do
Group Sports	28	42
Individual Sports	14	7
Playground Games	8	10
Box and Card Games	15	10
Collecting Things	1	1
Musical/Art	10	3
Other Academic	2	4
Read and Go To Library	9	2
Home Chores and Practical Skills	1	2

TABLE 10

SUMMARY OF SIGNIFICANT DIFFERENCES BETWEEN MALES AND FEMALES
IN PERCENTAGES FOR RESPONSE CATEGORIES,
EXERCISE 101011

Response Category	Part A-Like To Do		Part B-Not Like To Do	
	Males	Females	Males	Females
Group Sports	43*	13*	46*	38*
Individual Sports	11*	17*	8	7
Playground Games	5*	10*	8*	12*
Box and Card Games	13*	17*	11	9
Musical/Artistic	7*	12*	3	3
Read and Go To Library	6*	12*	2	2

TABLE 11

PERCENTAGES OF NINES RESPONDING TO FIVE SUB-PARTS,
CORRECTLY IDENTIFY OCCUPATIONAL DESCRIPTIONS,
EXERCISE 102002

Occupation Category	Total Group	Sex		Race		Parent Education	
		Male	Female	Black	White	No-HS	Post-HS
Nurse	96	96*	97*	89*	98*	94	97
Mailman	94	93	95	87*	95*	89	97*
Secretary	83	79	86	68*	85*	71*	89*
Service Station Attendant	82	81	82	69*	85*	63*	86*
Newscaster	85	87*	83*	65*	89*	70*	90*

TABLE 12

PERCENTAGES OF NINES GIVING ACCEPTABLE OCCUPATIONS DESCRIPTIONS, EXERCISE 102033

Resonse Category	Two Acceptable Responses	Three Acceptable Responses
One or more occupations	97	87
Two or more occupations	93	70
Three or more occupations	83	47

TABLE 13

PERCENTAGES OF NINES GIVING AT LEAST TWO CORRECT RESPONSES TO SUB-PARTS, EXERCISE 102033

Occupation Category	Nat.	Region				Parental Education	
		SE	West	Cent	NE	No-HS	Post-HS
Mailman	76	69*	75	78	89*	73	79*
Store Clerk	72	63*	77*	77	72	59*	77*
Policeman	91	87	93	90	93	86	94*
Teacher	89	86	93*	88	89	91	93*

TABLE 14

PERCENTAGES OF NINES GIVING ACCEPTABLE RESPONSES
FOR WORK THEY DO AT HOME
EXERCISE 200002

Response Category	Nat.	Sex		Race		Parent Education	
		Male	Female	Black	White	No-HS	Post-HS
At Least One	96	95*	98*	92*	97*	93	98*
At Least Two	71	68*	74*	64*	73*	57*	76*

TABLE 15

PERCENTAGES OF NINES BY SEX AND RACE FOR
HOUSEHOLD AND MAINTENANCE-BUILDING SKILLS CLUSTERS,
EXERCISE 200019

Skills Category	Nat.	Sex		Race	
		Male	Female	Black	White
Household					
Babysat	51	49	53	56*	50
Changed Sheets	74	68*	79*	85*	72*
Cooked Meals	27	21*	34*	34*	26*
Ironed Clothes	57	42*	73*	76*	53*
Maintenance-Building					
Built from Wood	62	80*	45*	55*	65*
Painted on Object	80	83*	77*	71*	82*
Put Batteries in a Flashlight	91	93*	88*	83*	93*
Set a Clock	78	81*	75*	69*	80*

TABLE 16

PERCENTAGES OF NINES LISTING ACCEPTABLE RESPONSES FOR
OUT-OF-SCHOOL LEARNING EXPERIENCES
EXERCISE 200016

Response Category	Nat.	Region				Sex		Race		Parent Education	
		SE	West	Cent	NE	Male	Female	Black	White	No-HS	Post-HS
One Acceptable	62	55	60	63	68	55	68	50	65	49	72
Two Acceptable	44	37	44	45	50	39	50	30	48	36	55
Three Acceptable	28	23	29	27	33	24	31	17	30	27	36

TABLE 17

PERCENTAGES OF NINES WHO HAD VISITED PLACES OF INTEREST IN THE COMMUNITY
EXERCISE 200018

Response Category	Nat.	Region				Sex		Race		Parent Education	
		SE	West	Cent	NE	Male	Female	Black	White	No-HS	Post-HS
Dairy	48	44	55*	48*	47	51*	46*	33*	51*	52	55*
Newspaper Plant	16	15	14	19	17	19*	13	19	16	17	20*
Museum	77	63*	78	82*	81*	76	77	75	77	63*	86*
Zoo	88	80*	92*	92*	89	89	87	83	89	83	92*
Planetarium	29	25	30	20*	40*	32*	27*	24	30	18*	39*
Aquarium	53	41*	56	56	57	57*	50*	48	54	45	60*
Factory	60	58	57	66*	57	64*	56*	51*	62*	60	66*
College	41	35*	50*	41	40	44*	39*	36	42	42	53*
Farm	80	78	73*	90*	75*	80	79	67*	83*	80	82
Library	97	95	97	99*	97	97	97	96	98	95	99*
Airport	81	76*	88*	76*	84	83	80	71*	83*	73*	89*

TABLE 18

PERCENTAGES OF NINES GIVING CORRECT RESPONSES FOR NUMERICAL SKILLS, EXERCISES 301033, 301034, 301035

Response Category	Nat.	Region				Sex		Race		Parent Education	
		SE	West	Cent	NE	Male	Female	Black	White	No-HS	Post-HS
45 seconds =	3	1	2	3	4	3*	2*	0*	3*	0*	4*
1 minute =	72	60*	71	74	79*	75*	68*	37*	80*	58*	79*
30 inches =	13	11	11	12	17*	14	12	4*	15*	9	18*
2 feet =	47	37*	50	49	52	51*	43*	19*	54*	33*	62*
16 ounces =	29	27	22*	28	38*	34*	25*	14*	33*	24*	35*
1-1/2 pounds =	11	9	8	9	17*	14*	8*	2*	13*	6*	17*

TABLE 19

PERCENTAGES OF NINES GIVING CORRECT RESPONSES FOR COMMUNICATION SKILLS
EXERCISES 302015, 302010, 302020

Response Category	Nat.	Region				Sex		Race		Parent Education	
		SE	West	Cent	NE	Male	Female	Black	White	No-HS	Post-HS
Address an Enevelope	56	46*	58	59	59	44*	67*	36*	60*	45*	66*
Use a Map	40	30*	39	42	46*	42	38	14*	45*	21*	55*
Use a Telephone Directory	49	56*	43	54	43*	47	50	39*	51*	49	52

TABLE 20
PERCENTAGES OF NINES GIVING CORRECT RESPONSES FOR MANUAL-PERCEPTUAL SKILLS,
EXERCISES 303008, 303011

Response Category	Nat	Race		Parent Education	
		Black	White	No-HS	Post-HS
Measure Line	46	19*	53*	26*	54*
Read Measuring Cup	30	12*	35*	20*	40*

TABLE 21

PERCENTAGES OF NINES GIVING CORRECT RESPONSES FOR INTERPERSONAL SKILLS, EXERCISES 305008, 305009

Response Category	Nat.	Race		Parent Education	
		Black	White	No-HS	Post-HS
Helped Someone with Schoolwork	88	87	88	79*	90*
Help Non-English Speaking Person	87	81*	88*	85	91*

TABLE 22

PERCENTAGES OF NINES RESPONDING TO EACH RESPONSE CATEGORY, ASSUME RESPONSIBILITY FOR OWN BEHAVIOR, EXERCISE 401003

Response Category	Nat.	Sex		Race	
		Male	Female	Black	White
Choice 1	39	44*	35*	52*	37*
Choice 2	19	16*	21*	10*	20*
Choice 3	35	31*	39*	27*	36*
Choice 4	5	6*	5	6	6

TABLE 23

PERCENTAGES OF NINES RESPONDING TO ACCEPTABLE AND UNACCEPTABLE RESPONSES,
USE INITIATIVE AND INGENUITY TO FULFILL RESPONSIBILITY,
EXERCISE 403005

Response Category	Nat.	Region				Sex		Race		Parent Education	
		SE	West	Cent	NE	Male	Female	Black	White	No-HS	Post-HS
Ask Teacher (acceptable)	53	44*	51	54	59*	48*	57*	36*	58*	29*	61*
Ask Another (unacceptable)	23	21	25	25	20	24	22	22	22	27	21

TABLE 24

PERCENTAGES OF NINES GIVING ACCEPTABLE RESPONSES,
WHO MAKES DECISION ABOUT KIND OF JOB,
EXERCISE 503011

Response Category	Nat	Race		Parent Education	
		Black	White	No-HS	Post-HS
Myself	39	24*	42*	27	44*
Myself in Consultation with others	1	0*	1	0*	2*

TABLE 25

PERCENTAGES OF NINES GIVING YES RESPONSES TO SUB-PARTS
PREFERENCE FOR LIST OF ACTIVITIES IF MILLIONAIRE,
EXERCISE 503012

Response Category	Nat.	Race		Parent Education	
		Black	White	No-HS	Post-HS
Build houses and gardens	46	60*	43*	50	43
Give to a charity	72	59*	76*	60*	81*
Learn new things	81	82	81	71*	84*
Raise race horses	60	50*	62*	57	64*
Travel	86	88	86	76*	90*

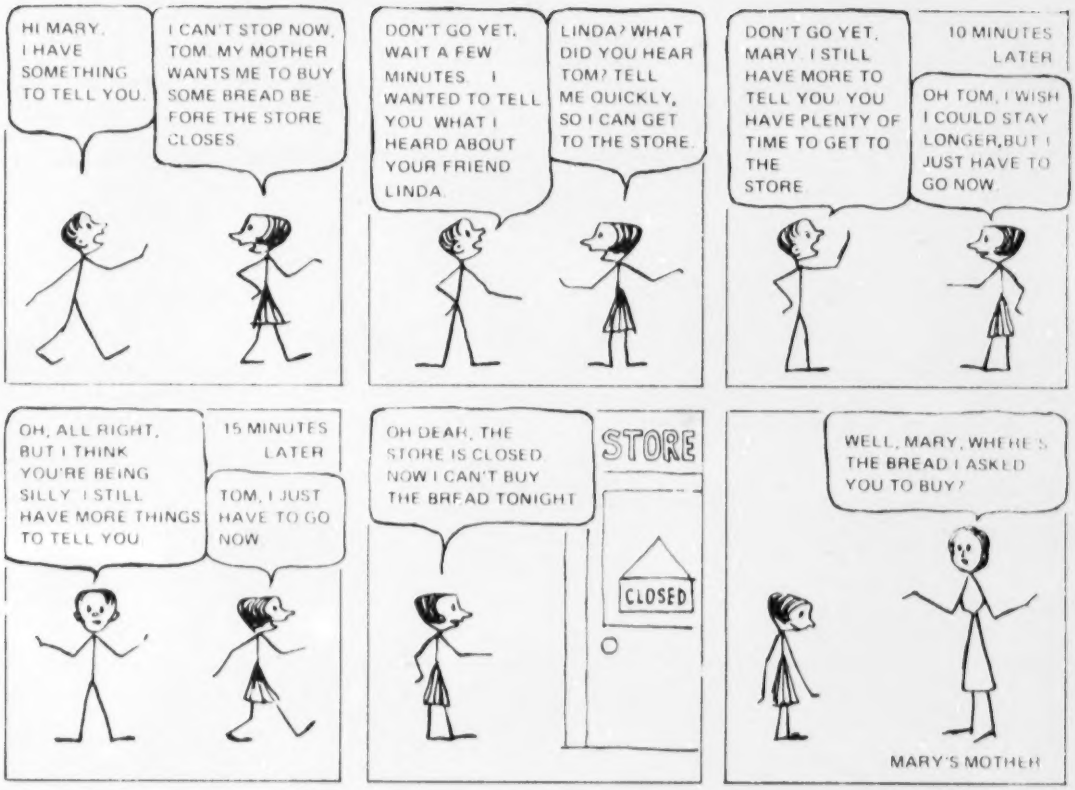
HI MARY. I HAVE SOMETHING TO TELL YOU.
I CAN'T STOP NOW, TOM. MY MOTHER WANTS ME TO BUY SOME BREAD BEFORE THE STORE CLOSES.
DON'T GO YET. WAIT A FEW MINUTES. I WANTED TO TELL YOU WHAT I HEARD ABOUT YOUR FRIEND LINDA.
LINDA? WHAT DID YOU HEAR TOM? TELL ME QUICKLY, SO I CAN GET TO THE STORE.
DON'T GO YET, MARY. I STILL HAVE MORE TO TELL YOU. YOU HAVE PLENTY OF TIME TO GET TO THE STORE.
10 MINUTES LATER
OH TOM, I WISH I COULD STAY LONGER, BUT I JUST HAVE TO GO NOW.
OH, ALL RIGHT, BUT I THINK YOU'RE BEING SILLY. I STILL HAVE MORE THINGS TO TELL YOU.
15 MINUTES LATER
TOM, I JUST HAVE TO GO NOW.
OH DEAR, THE STORE IS CLOSED. NOW I CAN'T BUY THE BREAD TONIGHT.
STORE
CLOSED
WELL, MARY, WHERE'S THE BREAD I ASKED YOU TO BUY?
MARY'S MOTHER

FIGURE 1. National Assessment Geographic Regions

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